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DISCUSSION

USE AND BENEFITS OF PRESSURE RECORDING GAGES

BY J. M. DIVEN

Printed in JOURNAL OF THE AMERICAN WATER WORKS ASSOCIATION, Vol. 1, No. 1, March, 1914, at page 103, and presented for discussion at the Philadelphia Convention, May, 1914.

MR. A. A. REIMER: The use of recording gages is absolutely necessary in any up-to-date system. We consider that in our case one of the most valuable uses to which we have applied them is in our fire flow test work. By placing a recording gage in any group of hydrants to be tested we obtain a complete record of the loss of pressure in that group without having to station a man at every individual hydrant in the group. Thus we will eliminate the use of a large corps of men and with two or three men we can run these fire flow tests and our results check very nicely with the results obtained by the representatives of the National Board of Fire Underwriters, who made a recent survey in East Orange.

With reference to packing away the charts, the plan of taking out one typical chart each month, and any special chart with the necessary notes on that special chart, reduces the space required very largely.

MR. J. M. DIVEN: No objection was made to filing away the charts so that they can be referred to, but it was merely suggested that the diagrammatic form was so much more convenient for reference as you have before you the record of the entire year, or even a series of years. Every chart should be preserved as an evidence and record of that day's pressure conditions. Averages or typical charts would be of no value in a law suit.

MR. A. A. REIMER: We do not think it necessary to keep the charts indefinitely. Charts that are ten years old are obsolete, and

there is not one chance in ten thousand that there will ever be occasion to refer to such charts.

MR. J. M. DIVEN: I have studied some that were thirty years old, and found them interesting. But suppose there is a limit to the time charts would be valuable, as the averages answer for the purpose of studying general conditions. However, like to be ready for the ten thousandth time.

MR. J. WALTER ACKERMAN: In connection with this subject the author spoke of the ragged condition of the charts that sometimes exist. In our own system, our attachment for the office chart happens to be in the down-town district where the elevators are located; and in trying to eliminate the effect they have on the charts we took an ordinary hot water tank and placed it in the basement of the office building, arranged by-pass connections in such a way that we could use that for an air-chamber or a cushion, so that the actual surge on your elevator systems does not give the gage the momentary thrust, but the air-chamber absorbs it, while any direct change in pressure gradually shows up. The speaker does not know whether anyone has had that particular experience or not, and just mentions it as one of the things that can be added to a recording gage that will obviate some of the difficulty.

MR. J. M. DIVEN: That is a novel suggestion, but does it not do away with one of the uses of the gage, by failing to record the water hammer caused by hydraulic elevators? That is good information to have; the very fact that that gage is fluctuating is an indication that something is abnormal on your system; that you have a 30 or 40 pound water hammer, and you do not want to eliminate the record of it; but to try to find its source and then correct it.

MR. J. WALTER ACKERMAN: But if you have a number of elevators that are already destroying your gage record, you want something to try to eliminate that.

MR. J. M. DIVEN: Your gage is telling you that what you want to do is to get rid of those elevators, or else put in a bigger main for them, one large enough to supply them without undue fluctuation of pressure.